

STRUCTURE AND METHOD FOR STORING DATA ON OPTICAL DISKS

Curtis M. Pleiss

Stanton M. Keeler

ABSTRACT

5 During manufacturing of optical disks, mastering equipment inserts marks
("high frequency wobble marks" or "HFWMs") into the wobble of the groove on
optical disks to store data. The presence of a HFWM at a zero crossing of the
wobble indicates an active bit and the absence of the HFWM indicates an inactive
bit. The zero crossing is, for example, a negative zero crossing. A matched filter is
10 used to detect the shape of the HFWMs. If a HFWM is detected during a wobble
cycle, an active bit is saved in a register or a memory. If a HFWM is not detected
during a wobble cycle, an inactive bit is saved in a register or a memory. The active
and inactive bits may be coded bits that must be decoded to data bits. The data bits
include information such as a synchronization mark, a sector identification data, and
15 an error detection code.